The Effect of Product Quality, Price Perception and Promotion on Customer Satisfaction and its Impact on Customer Loyalty of PT Makmur Jaya Agro Pesticides

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ARTICLE INFO

Keywords:
- Product Quality
- Price Perception
- Promotion
- Customer Satisfaction
- Customer Loyalty
- Pesticides

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ABSTRACT

This study aims to determine the direct effect of Product Quality, Price Perception and Promotion on Consumer Satisfaction of PT Makmur Jaya Agro’s pesticides, as well as to determine the indirect effect of these variables on Customer Loyalty through Customer Satisfaction. As many as 160 respondents of PT Makmur Jaya Agro’s pesticide consumers who came from the Subang Regency area were the objects of this study. The research model used the Structural Equation Model (SEM) with the help of analysis tools SPSS Version 26 and Lisrel Version 8.30. The results showed that Product Quality, Price Perception and Promotion had a positive and significant effect on Customer Satisfaction. Customer Satisfaction is an intervening variable dependent on customer loyalty where Product Quality, Price Perception and Promotion have a positive and significant effect on Customer Loyalty through Customer Satisfaction. This research can be useful for companies to identify, plan and manage steps and policies to increase Customer Satisfaction and Customer Loyalty.

https://doi.org/10.37275/OAIJSS.v4i1.42

1. Introduction

Indonesia is an agricultural country where most of the population work in fields related to agriculture, according to BPS data in 2019 showing that more than 27% of the population in Indonesia works in the agricultural sector or related to agriculture. In addition to providing a sizable contribution to Indonesia’s national income, some of Indonesia’s exports also come from the agricultural sector, so that the agricultural sector has an important role in absorbing labor and providing food and clothing needs for the population (Wibowo, 2012).

In agricultural cultivation, which emphasizes increasing productivity, the use of pesticides is a necessity that cannot be avoided by farmers. Pesticides are needed to control the attack of plant pests so that plants can produce optimally. The current technological developments in the field of pesticides are encouraging competition between companies to become stronger. Each company will make every effort to ensure the sustainability of its market share. Product innovation with the same good quality will indirectly confuse consumers in making choices to buy the product. One of the losses that will be experienced by the company due to this condition is that the company will lose consumers in the
future or the company's consumers will move to another company, of course this will be detrimental to the company because it will reduce the profits obtained.

The pesticides business is a very big and attractive business. Until now, the pesticide business is still controlled by international companies, including Bayer, Syngenta, BASF, Nufarm, Dow Agroscience and several other companies with 2019 resistant sales value of more than 600 trillion rupiah (Agrinews, 2020). PT Mamkur Jaya Agro is a pesticide producer that produces several types of pesticides, both insecticides, fungicides, herbicides and other types of pesticides. To be able to compete with other pesticide producers, PT Makmur Jaya Agro needs more effort, given the limited capital and information at the farmer level.

To be able to survive in the competition, companies are required to better understand the needs and desires of consumers. A good marketing concept is also needed to create loyal consumers so that they do not switch to other pesticide producers. According to Suyanto (2002), the marketing concept states that the key to achieving company goals is satisfying the needs and desires of consumers.

The activities of a company do not end only with the occurrence of transactions, it further tries to make the product satisfying consumers and able to compete with other similar products. This requires companies to be able to compete in producing goods as well as possible according to consumer desires. So it is clear that marketing is very important for companies, especially in the current era of economic globalization which is also very influential in marketing activities. Economic globalization seems to no longer recognize boundaries between countries which cause all activities to take place quickly and precisely, through marketing, production products can be introduced and purchased by consumers (Alma in Haryani, 2006).

Consumer purchasing decisions are important because they are the main goal of the company in creating a marketing strategy. Purchasing decisions by consumers are directly related to company profits. According to J Paul Peter and Jerry C, Olsson (2000) consumer decision making is an integration process that combines knowledge to evaluate two or more alternative behaviors, and choose one of them. The result of this integration process is a choice that is presented cognitively as a desire to behave, the desire to behave is a plan to engage in several behaviors. There are many factors that influence consumer purchasing decisions including product quality, perceived price and promotion.

Furthermore, the perception of price and product quality are the main things that concern consumers before making a purchase, they prefer, at a relatively affordable price, to get quality products, especially products that already have a brand. The decision-making process varies greatly, some are simple, namely consumers recognize the problem and then immediately make the decision to buy their favorite / favorite brand (without evaluation of alternatives) and some are complex, namely starting from the introduction of consumer problems that can be solved through purchasing several products. For this purpose, consumers seek information about how a particular product or brand then evaluates how well each of these alternatives solves the problem. Evaluation of the product or brand will then lead to purchasing decisions, then consumers will evaluate the results of their decisions. Decision making does not only end with the occurrence of a purchase transaction but is also followed by the post-purchase behavior stage. In this stage, consumers feel the level of satisfaction or dissatisfaction (Tjiptono, 2008).

The main challenge faced by PT. Makmur Jaya Agro today is how to build and maintain a healthy business in a fast-changing market and business environment, to grab pesticide market share amid competition from other pesticide
companies and how to keep consumers loyal in buying PT. Makmur Jaya Agro.

From the description above, researchers are interested in conducting research with the title "The Effect of Product Quality, Price Perception and Promotion on Customer Satisfaction and its Impact on Customer Loyalty of PT Makmur Jaya Agro Pesticides". From previous research, there is a research research gap (gap research) related to the effect of Product Quality, Price Perception, Promotion on Consumer Satisfaction and its impact on Customer Loyalty, showing different research findings between one researcher and another, so further research is needed and is expected to clarify how the influence of Product Quality, Price Perception, Promotion on Customer Satisfaction and its impact on Consumer Loyalty.

This research was developed to fill the gap research (gap research) previously by using variable Product Quality, Price and Promotion as exogenous independent variables that affect Customer Satisfaction as an intervening variable and Customer Loyalty as the endogenous dependent variable.

This article has four parts. First, it reviews the literature relevant to workplace incivility and turnover intention. Then the research methodology is presented and data analysis techniques are discussed. The next section discusses the research findings. The article concludes with a discussion of theoretical and managerial implications, as well as suggestions for further research.

2. Literature review

Marketing management

Marketing is one of the main activities of a company to sustain life and to earn profits. Companies must be able to provide satisfaction to consumers so that the company can continue to grow, or consumers have a good view of the company. According to Philip Kotler (2008) marketing is a social and managerial process where individuals and groups get what they need and want through the creation and exchange of products and values with other parties. Meanwhile, according to William J. Stanton in the book (Swastha and Irawan, 2008) explains that marketing is an overall system of business activities aimed at planning, pricing, promoting, and distributing goods and services that satisfy the needs of both existing and existing buyers. potential buyers. Marketing management has the following functions: 1) Exchange function, with marketing, buyers can buy products from producers either by exchanging money for products or exchanging products for products (barter) for their own use or for resale; 2) The physical distribution function, the physical distribution of a product is carried out by transporting and storing the product. Products raised from producers to approach consumer needs in many ways by water, land and air and so on. Product storage prioritizes maintaining product supply so that it is not short when needed and 3) The function of intermediaries, to deliver products from the hands of producers to consumers can be done through marketing intermediaries that link exchange activities with physical distribution. Intermediary function activities include risk reduction, financing, information search and product standardization or classification.

Marketing mix

The marketing mix or marketing mix is an element of a company organization can be controlled by the company in communicating with consumers and for satisfy consumers. In marketing there is a marketing mix (Zeithaml and Bitner, 2008), whereas according to Kotler and Armstrong (1997), the marketing mix is a device controllable tactical marketing tools, product, price, distribution or place, and promotions that are combined by the company to produce the desired response in target market. The marketing mix consists of everything a
company can do for affect the demand for its products. It can be concluded that the meaning of the marketing mix (marketing mix), according to the author, is a combination of the four core forming variables a marketing system where each variable can be controlled and used by companies to influence target market demand. Marketing mix can also said to be a tool or way for companies to achieve marketing goals.

Many marketing mix strategies include: 1) market segmentation, which is the act of dividing the market into different groups of buyers with different needs, characteristics, or behaviors that may require separate products or marketing mixes; 2) Target market setting, which is the process of evaluating the attractiveness of each market segment and selecting one or more segments to be served, targeting the market consists of designing a strategy to build the right relationship with the right customer, or a large company may decide to offering a complete product line serving all its market segments, most companies enter new markets serving a single segment, and if this proves to be successful, they add segments; and 3) differentiation and market position, the company must decide how to differentiate its market offering for each target segment and what position it wants to occupy in that segment, the product position is the place the product occupies relative to its competitors in the minds of consumers, marketers want to develop a unique market position for their product. If a product is considered to be exactly the same as other products on the market, consumers have no reason to buy it.

**Product quality**

Product quality includes efforts to meet the needs or expectations of consumers and quality is a condition that is always changing (which is considered current quality may be less quality in the future). Quality is a product characteristic or characteristic in order to meet consumer needs and expectations (Tjiptono, 2016). According to Saleleng et al (2014) in Purnomo (2010), indicators for measuring product quality are:

Researchers have also found workplace incivility to be negatively related to productivity and job satisfaction, and positively associated with absenteeism, tardiness, and desire to move (Lim & Cortina, 2005; Penney & Spector, 2005; Rahim & Cosby, 2015). Hansen (1993) found evidence that victims of disrespectful behavior at work tended to consider voluntarily leaving the organization or voluntarily resigning from the company. In other words, immodesty leads to the intention to resign (Rahim and Cosby, 2015). Based on this description, the proposed hypothesis is: 1) Performance, which shows the basic working characteristics of the product (Widodo, 2014); 2) Reliability, reliability shows the probability of the product working well in a certain period of time (Widodo, 2014); 3) Features, are additional features based on basic features (Widodo, 2014); 4) Serviceability, where the service ability of a product results in conclusions about the quality of the product which is judged subjectively by consumers (Fitriyana et al., 2013); 5) Durability, shows how long the product will last so that it can no longer be used or until it requires replacement (Widodo, 2014).

**Price perception**

Price perception becomes a consumer’s assessment of the comparison of the amount of sacrifice with what will be obtained from products and services (Zeithaml in Kusdyah, 2012). According to Schiffman and Kanuk (2011) perception is a process of an individual in selecting, organizing, and translating the incoming information stimulus into a comprehensive picture, price perception is how consumers see prices as high, low and fair prices. This has a strong influence on both purchase interest and satisfaction in purchases. Price perception is related to how price information is
fully understood and provides deep meaning to consumers. Meanwhile, Chang and Wildt in Kaura (2012) define price perception as a representation of consumer perception or subjective perception of the objective price of a product. In today’s increasingly competitive situation, the difference in price is felt to be an important factor in purchasing decisions where generally consumers will choose the cheapest price for a product or service offered. Sukotjo and Radix (2010) explain that indicators of price perception are: 1) affordable prices; 2) price compatibility with product quality; 3) price compatibility with product benefits; 4) discounted price; and 5) price suitability.

**Promotion mix**

Promotion mix is the best combination of strategies from the variables of advertising, personal selling, and other promotional tools, all of which are designed to achieve the goals of the sales program (Swastha, 2008). Meanwhile, according to Kotler (2008), the promotion mix consists of advertising, personal selling, sales promotion, public relations, and direct marketing. According to Daryanto (2011), the promotional mix variables are: 1) Advertising, which is a form of promotional activity that is often carried out by companies through non-individual communication with a number of costs such as advertising through mass media, advertising companies, non-profit organizations, individuals, individuals who make posters and so on; 2) Personal Selling, is a promotional activity carried out between individuals who often meet face to face with the aim of creating, repairing, controlling or maintaining mutually beneficial exchange relations for both parties; 3) Sales promotion is a form of promotional activity using props such as: demonstrations, exhibitions, demonstrations, prizes, sample goods and so on; 4) Publicity and public relations, are promotional activities that are almost the same as advertising, namely through the mass media, but the information provided is not in the form of advertisements but in the form of news.

**Customer satisfaction**

Consumer satisfaction is an emotional assessment of consumers after consumers use a certain product, where the expectations and needs of consumers who use it are met. Consumer satisfaction is influenced by the quality of the products or goods provided to customers in the process of service delivery, service quality, perceived price, and situational and personal factors. According to Lupiyoadi (2001), consumer satisfaction is the level of feeling where a person states the results of a comparison of the performance of a product or service received as expected. According to Kotler and Armstrong (2008), consumer satisfaction is the level at which the perceived performance of the product is in accordance with buyer expectations. Meanwhile, according to Rangkuti (2006), consumer satisfaction is defined as a consumer’s response to the mismatch between the previous level of interest and the actual performance he feels after use.

Consumer satisfaction can also be defined as the level of a person’s feelings after comparing (performance or results) that is felt compared to expectations. Consumers can experience one of the three levels of general satisfaction, namely if the performance is below expectations, consumers will feel disappointed but if the performance is in accordance with customer expectations, they will feel satisfied and if the performance can exceed expectations, the customer will feel very satisfied, happy or happy, Kotler (2014).

**Customer loyalty**

Loyalty can be defined as an attitude directed by consumers towards the provision of products or services. A consumer will show a loyal attitude
if the company is able to provide satisfaction to its customers. A loyal customer is a consumer who always buys back the same service provider and chooses a positive attitude towards service providers in the future (Griffin, 2007). Related to this definition of customer loyalty, it turns out that there are several literatures that contain significant differences in the definition or meaning of consumer loyalty, and all of these definitions have some general elements in common. When examined as a whole, these three common elements can be identified as follows: first customer loyalty is response (emotional or cognitive); both responses related to a particular focus (expectations, products, consumption experiences, etc.); third is the response that occurs at a certain time (after consumption, after choosing, and based on accumulated experience, etc.). The three basic components of customer loyalty are then summarized, namely a response related to a particular focus that is determined at a certain time (Giese, 2002).

According to Zikmund in Gaffar (2007), there are factors that affect customer loyalty, namely: 1) Satisfaction, customer satisfaction is a measurement of the gap between customer expectations and the reality they receive or feel; 2) Emotional Bonding, consumers can be influenced by a brand that has its own appeal so that consumers can be identified in a brand, because a brand can reflect the characteristics of these consumers. A bond that is created when a consumer feels a strong bond with another consumer who uses the same product or service; 3) Trust, the willingness of someone to entrust a company or a brand to perform or carry out a function; 4) Ease (Choice Reduction and Habit), Consumers will feel comfortable with a product quality and brand when they are easy to make transactions. Customer Loyalty, such as regular product purchases, is based on accumulated experience at any time; 5) History With The Company, a person’s experience of the product can shape behavior.

### Pesticide
According to The United States Federal Environmental Pesticide Control Act, pesticides are all substances or mixtures of substances specifically to eradicate or prevent disturbance by insects, rodents, fungal nematodes, weeds, viruses, bacteria, microorganisms, which are considered pests, except viruses, bacteria or corpses. microscopic found in humans and other animals. Or all substances or a mixture of substances intended to be used as plant growth regulators or plant dryers (Sudarmo, 1992). Pesticide formulations are not sold in their pure form. Pure active ingredients are usually very toxic and difficult to dissolve in water so that their use in the field is not effective. Therefore, the active ingredients of pesticides are usually formulated in advance by mixing auxiliary materials, such as solvents, emulsifiers, diluents (wetting agents or diluents), carriers, and sometimes synergists (ingredients to increase the efficacy of pesticides). In general, pesticide formulations can be divided into liquid formulations and solid formulations. (Djojosumarto, 2008).

### 3. Method
Data collection was carried out by distributing questionnaires to pesticide customers who purchased pesticides at PT Makmur Jaya Agro. Respondent data collected were 160 farmers who bought pesticide products.

### Data analysis method
Reliability test is an index that shows the extent to which a measuring instrument can be trusted or reliable. Reliability shows the extent to which the measurement results remain consistent if done 2 (two) times or more on the same symptoms with the same measuring device (Umar, 2010).

The validity test is the level of the research instrument’s ability to measure something
desired and can reveal data from the variables being studied appropriately. This validity test is carried out to see the extent to which the instrument used to measure is to be measured. Valid means that the instrument can be used to measure what should be measured (Sugiyono, 2009). Invalid questionnaire items can be omitted or deleted for further analysis.

Normality and outlier tests were also carried out to assess the distribution of data in a group of variables. Is the distribution of data or variables normally distributed or not. The normality test is used to determine the use of parametric and non-parametric test statistics. In the normality test, univariate and multivariate normality were also performed.

Analysis technique

Inference statistical analysis technique is used to test the hypothesis, namely the analysis method used to find the regression equation or influence, whether: Product (X1), Price Perception (X2), Promotion (X3) affect Customer Satisfaction (Z) and Customer Loyalty (Y). The form of multiple linear regression from this study is:

\[ Z = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + e \]
\[ Y = b_4 Z + e \]

Information:
- Z = Customer Satisfaction
- Y = Consumer Loyalty
- \( b_0 \) = constant
- \( b_1 \) - \( b_4 \) = regression coefficient
- e = standard error

The data obtained will be processed using a computer data processing program, namely SEM (Structural Equation Model). SEM is a common and very useful multivariate analysis technique, covering a specific version in a number of other analytical methods as special cases. In addition, SEM is an analytical technique used to build and test statistical models which are usually in the form of a causal model. To speed up the processing and testing of data, it is carried out with the help of the computer application program SPSS and Lisrel version 8.30.

Research Hypothesis

The research hypothesis raised in this study is as follows:

- \( H_1 = \) Product quality has a positive and significant effect directly on customer satisfaction;
- \( H_2 = \) Perceived price has a positive and significant effect directly on consumer satisfaction;
- \( H_3 = \) Direct promotion has a positive and significant effect on customer satisfaction;
- \( H_4 = \) Direct customer satisfaction has a positive and significant effect on customer loyalty.
- \( H_5 = \) Product quality through customer satisfaction has a positive and significant effect on customer loyalty;
- \( H_6 = \) Perception of price through customer satisfaction has a positive and significant effect on customer loyalty;
- \( H_7 = \) Promotion through customer satisfaction has a positive and significant effect on customer loyalty;

4. Results and discussion

The direct effect of the variable Product Quality, Price Perception and Promotion on Customer Satisfaction and the direct effect of Customer Satisfaction on Customer Loyalty is presented in the following table:

**Direct effect of product quality on customer satisfaction**

Lupyoadi (2001) states that customers will feel satisfied if the results of their evaluation show that the products they use are of high quality. Kotler and Armstrong (2004: 310) also state that a high level of quality will result in high satisfaction. This supports the results of research
conducted by Saidai and Arifin (2012) which explains that product quality has a significant effect on consumer satisfaction. Sembiring et al (2014) also obtained the same research results that product quality has a significant effect on consumer satisfaction.

The test results show the t value of 22.38, thus the t value obtained is greater than t table 1.96, which means that there is a significant influence between product quality and consumer satisfaction. The amount of the coefficient is 0.71 and is positive, which means that the increase in product quality will be able to increase customer satisfaction. An increase of 1 point in product quality will increase Customer Satisfaction by 0.71 points. From the results of this study it can be seen that the Product Quality hypothesis has a significant and positive effect on Customer Satisfaction.

Product quality is the overall characteristic of a product that can meet customer needs as expected by customers. The explanation regarding the quality of the product that has been stated can be stated that if the company can provide or offer quality food products, the company will be able to create consumer satisfaction. A customer will feel satisfied usually because of the experience of making a purchase of a product that is consumed or used. Product quality has an important role in influencing customer satisfaction and forming customers to be loyal to the products the company offers. Customer satisfaction is an expression of the feelings of a customer which is described after comparing what is expected with what the company offers.

Satisfaction also depends on product quality. Quality is the totality of features and characteristics of a product or service that depends on its ability to satisfy stated needs. Product or service quality and customer satisfaction are closely related. Quality is the main key to creating value and customer satisfaction. The higher the quality level of a product, the higher the level of customer satisfaction (Kotler and Keller, 2016)

**Direct effect of price perception on customer satisfaction**

The results of the data analysis obtained show that the t value is 17.22, the t value is greater than t table 1.96 so it can be said that there is a significant influence between Price Perception on Consumer Satisfaction. The coefficient of 0.47 is positive, meaning that the better the consumer's perception of the price will be able to increase customer satisfaction. So that the hypothesis which shows that the better the consumer's perception of the price perception will be able to increase customer satisfaction is accepted. An increase in the value of Price Perception by 1 point will increase Consumer Satisfaction by 0.47 points.

Companies in the business of marketing goods or services need to set the right price. According to Kotler and Armstrong (2001) that price is the amount of money charged for a product or service, or the amount of value that consumers exchange for the benefits of owning or using the product or service. Price perception is often an indicator of value when the price is related to the perceived benefits of a good or service which at a certain price level when the benefits felt by consumers increase, the value will also increase. Likewise, at a certain price level, the value of a good and service will increase along with the increase in perceived benefits.

Zakaria and Astuti (2013) explain that price is the amount of money needed to get a combination of goods and their servants. Lenzun et al., (2014) explained that price is a statement of the value of a product which is the most flexible element of the marketing mix. According to Manus and Lumanauw (2015), price has an important role in the decision-making process, namely the role of the allocation of prices is to help buyers to get products or services with the
best benefits based on their purchasing power. Based on this information, it can be understood that the price is the amount of money needed to obtain a statement of the value of a product or service in accordance with the quality and benefits provided by being influenced by psychological factors and other factors that affect the price itself.

**Direct effect of promotion on customer satisfaction**

In general, promotion is defined as a one-way flow of information or persuasion designed to direct a person or organization to actions that create exchanges in marketing (Swastha, 2007). Promotion is a marketing mix that focuses on efforts to inform, persuade and remind consumers of the company's brands and products. According to Kotler and Armstrong (2011) promotion is an activity that communicates product excellence and persuades target customers to buy it.

The results of data analysis show that the t value is 19.16, the t value is greater than t table 1.96, which means that there is a significant influence between Promotion and Consumer Satisfaction. The coefficient is 0.73 and has a positive value, it means that the increase in promotion will be able to increase customer satisfaction. So that the hypothesis that increases the promotion will be able to increase customer satisfaction is accepted. An increase in promotional activities by 1 point will increase Customer Satisfaction by 10.73 points.

The purpose of promotion is to increase sales and company profits. In a competitive business the company must do the best possible promotion, without advertising the company will lose its market share (Manullang, 2008). Promotional activities that can be carried out by the company, among others, are through advertising, sales promotion, personal selling / personal selling, and publicity. Companies that can promote well will be better known to consumers and increase customer satisfaction. According to Kotler and Armstrong (2014: 27) that "Marketing as the process by which companies create value for customers build strong customer relationships in order to capture value from customers in return ". The purpose of this definition is that marketing is a process by which the company creates value for customers and builds strong customer relationships to capture customer value in return. According to Kotler and Keller (2012: 498) promotion mix is a means used by companies in an effort to inform, persuade and remind consumers either directly or indirectly about the products and brands they sell.

The results of this study are in line with previous studies, including Arif (2017) which states that promotion has a positive and significant impact on GO-JEK customer satisfaction among students of the Faculty of Economics and Business, University of North Sumatra. Furthermore, Agesta's research (2017) on consumers of Sanggar Bunga Mayang Bandar Lampung states that promotion has a positive and significant effect on customer satisfaction. Juniantara and Sukawati (2018) also state that promotion has a positive and significant effect on UberX consumer satisfaction in Bali. Handoko (2017) states that promotion has a significant effect on consumer satisfaction at PT Maxim Houseware Indonesia Medan.

**Direct effect of customer satisfaction on customer loyalty**

Tjiptono (2008) suggests "that customer satisfaction also has the potential to provide a number of specific benefits, including a positive impact on customer loyalty". This statement supports the results of previous research conducted by Widjoyo et al. (2014), that customer satisfaction has a significant effect on customer loyalty.
The results of data analysis show that the t value is 14.80, the t value is greater than t table 1.96, which means that there is a significant influence between Customer Satisfaction and Customer Loyalty. The amount of the coefficient is 0.94 and positive means that the increase in customer satisfaction will be able to increase customer loyalty. So that the hypothesis which shows that the increase in customer satisfaction will be able to increase customer loyalty is accepted. An increase in Customer Satisfaction by 1 meal point will increase Customer Loyalty by 0.94 points.

The research results obtained are in line with Kotler’s (2003: 40) theory which states that customer satisfaction will lead to repeat purchases thereby creating high growth and profit. Based on this, loyalty leads more to behavior shown by repeated or consistent purchases based on decision-making units. In addition, Jones and Sutisno (2003: 145) stated that customer loyalty is an endogenous variable caused by a combination of satisfaction, so that loyalty is a function of satisfaction. If the relationship between customer satisfaction and customer loyalty is positive, then high satisfaction will increase customer loyalty.

The following table presents the analysis of the indirect effect of Product Quality, Price Perception and Promotion on Customer Loyalty through Customer Satisfaction. All tested variables have a significant and positive effect on the dependent variable. Details can be seen in the following table:

### Indirect effect of product quality on customer loyalty through customer satisfaction

According to Kotler and Armstrong (2004), according to the product concept, a consumer will like a product that offers the best quality, performance and best characteristics. This is in accordance with the results of previous studies conducted by Mangore et al. (2015), that the increase and decrease in customer loyalty is influenced by the increase and decrease in the quality of the products offered, consumers will feel satisfied if the quality products offered. This is in line with research conducted by Kurniawati et al. (2014), that product quality has a significant effect on customer loyalty.

The results of the data analysis of the indirect effect of product quality on consumer loyalty through satisfaction obtained t value of 16.85, this t value is greater than t table 1.96, it means that indirectly product quality has a significant effect on customer loyalty. The coefficient of 0.66 is positive, meaning that indirectly increasing product quality will increase customer loyalty through customer satisfaction. A 1 point increase in Product Quality will increase Customer Satisfaction and lead to an increase in Customer Loyalty by 0.66 points.

Based on the theory of Robinette (2003: 13) which states the factors that affect customer loyalty, namely attention (carring), companies must be able to see and overcome all the needs, expectations, and problems faced by customers. With that attention, customers will become satisfied with the company and make repeat transactions with the company, and in the end they will become loyal company customers; trust (trust), trust arises from a long process until both parties trust each other. If trust has been established between the customer and the company, the effort to foster it will be easier, the relationship between the company and the customer is reflected in the level of trust of the customers; and accumulative satisfaction, the overall assessment based on the total consumption purchases of goods and services in a certain period.

### The indirect effect of price perception on customer loyalty through customer satisfaction

Price is an important factor for consumers as
a consideration for consumers in consuming a product or service (Kotler, 1994). The results of private research (2002) concluded that price is often used as an indicator of quality for customers where people often choose a lower price. In this case, what is meant by cheap is the conformity with the quality of the service at the price that must be paid. In addition, it can also be interpreted as the lowest price for the best service quality. So that low prices have an association between the quality obtained well with good customer satisfaction for these services.

The results of the data analysis of the indirect effect of Price Perception on Customer Loyalty through Customer Satisfaction obtained the t value of 14.95, the t value is greater than t table 1.96, meaning that indirectly Price Perception has a significant effect on Customer Loyalty through Customer Satisfaction. The coefficient value is 0.44 with a positive notation, meaning that Price Perception indirectly has a significant and positive influence on Customer Loyalty through Customer Satisfaction. An increase in the value of Price Perception by 1 point will lead to an increase in Customer Satisfaction and in the end also an increase in Customer Loyalty by 0.44 points.

**Indirect effect of promotion on customer loyalty through customer satisfaction**

Promotion has an influence both directly and indirectly on customer loyalty and can encourage consumers to make repeated buying behavior. Several studies on promotion have found that the specific attributes of promotion have a direct effect on the repurchase rate (in Ping pi and Hong Huang, 2011). In the research conducted by Gu-Shin Tung, Chiung-Ju Kuo and Yun Ting Kuo entitled ”Promotion, Switching, Barriers and Loyalty” states that many developing concepts regarding the definition of sales promotion are efforts to increase short-term sales (Bawa and Shoemaker , 1987; Gupta an Cooper, 1992; Smith an Sinha, 2000 in Gu-Shin Tung).

The results of the analysis of research data for the hypothesis of the indirect effect of Promotion on loyalty through satisfaction resulted in a t value of 15.80, this t value is greater than the t value of 1.96 which means that Promotion has a significant effect on Customer Loyalty through Customer Satisfaction. The coefficient of 0.69 with positive notation means that indirectly Promotion affects customer loyalty through significant and positive customer satisfaction. Increasing Promotion by 1 point will increase Customer Loyalty by 0.69 points by increasing Customer Satisfaction.

**Effect of product quality on customer satisfaction**

The results showed that product quality had a positive and significant effect on consumer satisfaction of PT Makmur Jaya Agro pesticides. The results of this study are in accordance with the research conducted by Pardede (2015) which concluded that consumer satisfaction is significantly and positively influenced by product quality.

**The effect of price perception on consumer satisfaction**

The results showed that price perception had a positive and significant effect on consumer satisfaction of PT Makmur Jaya Agro pesticides. The results of this study are in accordance with the research conducted by Pardede (2015) which concluded that consumer satisfaction is significantly and positively influenced by Price Perception, where Consumer Satisfaction will increase if Price Perception is increased. The results of research conducted by Cahyadi (2014) also show that price perceptions have a significant influence on consumer satisfaction. Price perception also has a positive and significant effect on UberX consumer satisfaction
in the city of Denpasar Bali (Juniantara, 2018).

The results of this study also support research from Suwandi (2015), Hasanah (2012) argues that what significantly affects customer satisfaction is price perception. This is also in line with research conducted by Hermawan et al. (2017) which states that price perceptions have a positive and significant effect on customer satisfaction.

**The effect of promotion on customer satisfaction**

The results of the study show that promotion has a positive and significant effect on consumer satisfaction of pesticides at PT Makmur Jaya Agro, the results of this study are in accordance with research conducted by Listiawati et al. (2017) which concluded that there is a significant and positive effect of promotion on consumer satisfaction at PT Indomearet Suralaya. Research conducted by Yulianto et al. (2016) also concluded that promotion has a significant and positive effect on Customer Satisfaction of Mobile Counter in Shiba. Promotion has a positive and significant effect on consumer satisfaction, this means that if UberX is able to provide good and quality promotions, consumers will have a positive perception of UberX promotions, so that the level of customer satisfaction will increase. (Juniantara, 2018).

**Effect of customer satisfaction on customer loyalty**

The results of this study indicate that consumer satisfaction has a positive and significant effect on customer loyalty of pesticides at PT Makmur Jaya Agro, these results are consistent with previous studies. According to research by Wijayanto (2015) and Jeanne (2012), satisfaction has a positive and significant effect on consumer loyalty. According to opinion of Montolalu (2013) and Setiawan & Sayuti (2017) that customer satisfaction has a positive and significant effect on customer loyalty. Research conducted by Suwarni (2011) that consumer satisfaction has a positive and significant effect on consumer loyalty. The results of other studies show that consumer satisfaction has a positive and significant effect directly on customer loyalty for Darbost brand t-shirts (Adnyana, 2021).

**Effect of product quality on customer loyalty through customer satisfaction**

The results showed that product quality through consumer satisfaction had a positive and significant effect on customer loyalty of PT Makmur Jaya Agro pesticides. These results support the research Pardede (2015) also concluded that the consumer satisfaction variable has an influence on purchasing decisions to mediate perceptions of price and product quality. In addition, Gultom (2017) concluded that Product Quality through Consumer Satisfaction has a positive and significant effect on Samsung Smartphone Customer Loyalty in Semarang.

**The influence of price perception on customer loyalty through customer satisfaction**

The results showed that Price Perception through Consumer Satisfaction had a positive and significant effect on Customer Loyalty of PT Makmur Jaya Agro pesticides. The results of Pardede’s (2015) study also concluded that the consumer satisfaction variable has an influence on purchasing decisions to mediate perceived price and product quality. In addition, research conducted by Cardia et al. (2019) also concluded that Promotion has a positive and significant effect on customer loyalty of Smartfren prepaid cards in the city of Denpasar. The results of the study are also in line with the research conducted by Tyas Adi (2013) which states that Price Perception has a significant and positive effect on Customer Loyalty. Research conducted by Wilis and Andini (2020) also shows that prices
are positively correlated with Traveloka customer loyalty.

**Effect of promotion on customer loyalty through customer satisfaction**

The results showed that promotion through consumer satisfaction had a positive and significant effect on customer loyalty of PT Makmur Jaya Agro pesticides. These results are in accordance with the research conducted by Murtaningtyas (2019) which concluded that promotion has a positive and significant effect on customer loyalty at Kremes chicken restaurant, Ms. Eny Srages. In addition, research conducted by Cardia et al (2019) also concluded that Promotion has a positive and significant effect on customer loyalty of Smartfren prepaid cards in the city of Denpasar.

![Figure 1. Research model](image)

**Table 1. Direct Effect of Independent Variables on Bound Variables**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Standardized Coefficient</th>
<th>T- count</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 Product Quality → Satisfaction</td>
<td>0.71</td>
<td>22.38</td>
<td>Positive significance</td>
</tr>
<tr>
<td>H2 Price Perception → Satisfaction</td>
<td>0.47</td>
<td>17.22</td>
<td>Positive significance</td>
</tr>
<tr>
<td>H3 Promotion → Satisfaction</td>
<td>0.73</td>
<td>19.16</td>
<td>Positive significance</td>
</tr>
<tr>
<td>H7 Satisfaction → Loyalty</td>
<td>0.94</td>
<td>14.80</td>
<td>Positive significance</td>
</tr>
</tbody>
</table>

**Table 2. Indirect Effects**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Standardized Coefficient</th>
<th>T- count</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Quality → Satisfaction → Loyalty</td>
<td>0.66</td>
<td>16.85</td>
<td>Positive significance</td>
</tr>
<tr>
<td>Price Perception → Satisfaction → Loyalty</td>
<td>0.44</td>
<td>14.95</td>
<td>Positive significance</td>
</tr>
<tr>
<td>Promotion → Satisfaction → Loyalty</td>
<td>0.69</td>
<td>15.80</td>
<td>Positive significance</td>
</tr>
</tbody>
</table>
5. Conclusion

1. Product quality directly has a positive and significant effect on customer satisfaction. PT. Makmur Jaya Agro, the better the quality of the pesticide product, the higher the consumer's satisfaction.

2. Perceived price directly has a positive and significant effect on consumer satisfaction at PT Makmur Jaya Agro. The higher the perception of pesticide product prices, the higher the consumer satisfaction.

3. Promotion has a positive and significant effect on consumer satisfaction of PT Makmur Jaya Agro’s pesticide products. The bigger the promotion, the higher the customer satisfaction.

4. PT Makmur Jaya Agro pesticide product consumer satisfaction has a positive and significant effect on customer loyalty. The higher the level of customer satisfaction, the higher the customer loyalty.

5. Product quality has a positive and significant effect on customer loyalty of PT Makmur Jaya Agro pesticides through customer satisfaction.

6. Perception of price has a positive and significant effect on customer loyalty of PT Makmur Jaya Agro pesticides through customer satisfaction.

7. Promotion has a positive and significant effect on customer loyalty of PT Makmur Jaya Agro pesticides through customer satisfaction.

5. References


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